

# **Honolulu High-Capacity Transit Corridor Project Alternatives Analysis**

## **Community Update Meeting 7 Summary Report**

**April 6, 2007**

Prepared for:  
City and County of Honolulu

Prepared by:  
Parsons Brinckerhoff Quade & Douglas, Inc.



The seventh Community Update meeting was held on Monday, September 18, 2006, at noon at the University of Hawai'i Mānoa Campus Center Ballroom. It was attended by approximately 75 people.

Attached is the meeting agenda, a copy of the PowerPoint presentation and a copy of the sign-up sheet.

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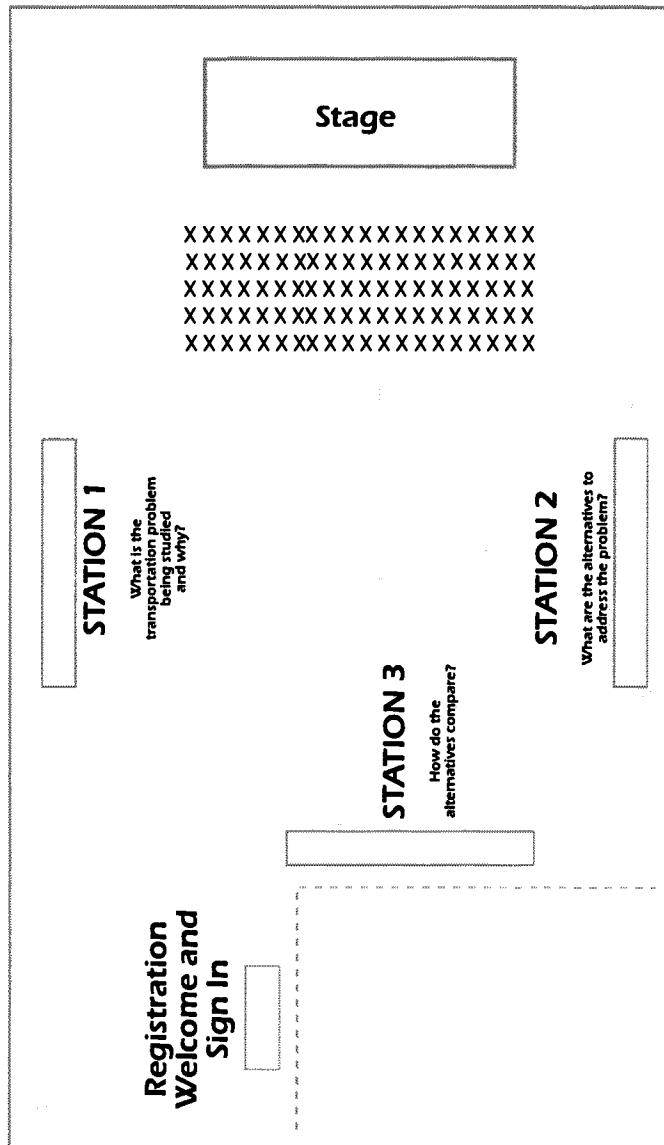
# COMMUNITY UPDATE AGENDA

**Monday, September 18, 2006**

**12:00 p.m. - 1:30 p.m.**

**UH Mānoa Campus Center Ballroom**

- 12:00 p.m. - 12:30 p.m.  
Registration  
Visit Stations  
Meet with Project Team
- 12:30 p.m. - 1:00 p.m.  
Formal Presentation
- 1:00 p.m. - CLOSING  
Visit Stations for Q & A



**UH Mānoa Campus Center Ballroom**

**HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT**



# Honolulu On The Move

An Update on the Honolulu High-Capacity Transit Corridor Project

## **Community Update** University of Hawai'i at Mānoa

**September 18, 2006**

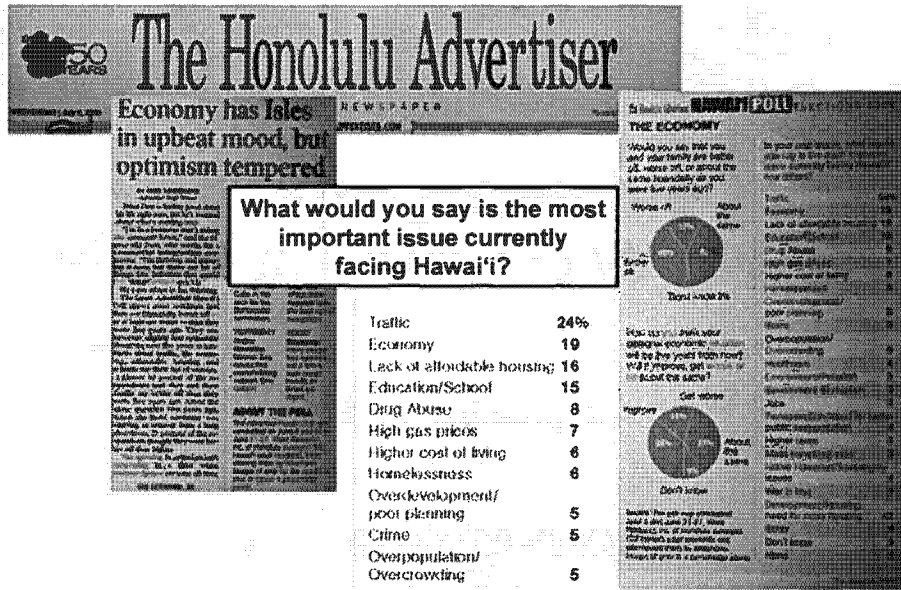
[www.honolulutransit.org](http://www.honolulutransit.org)

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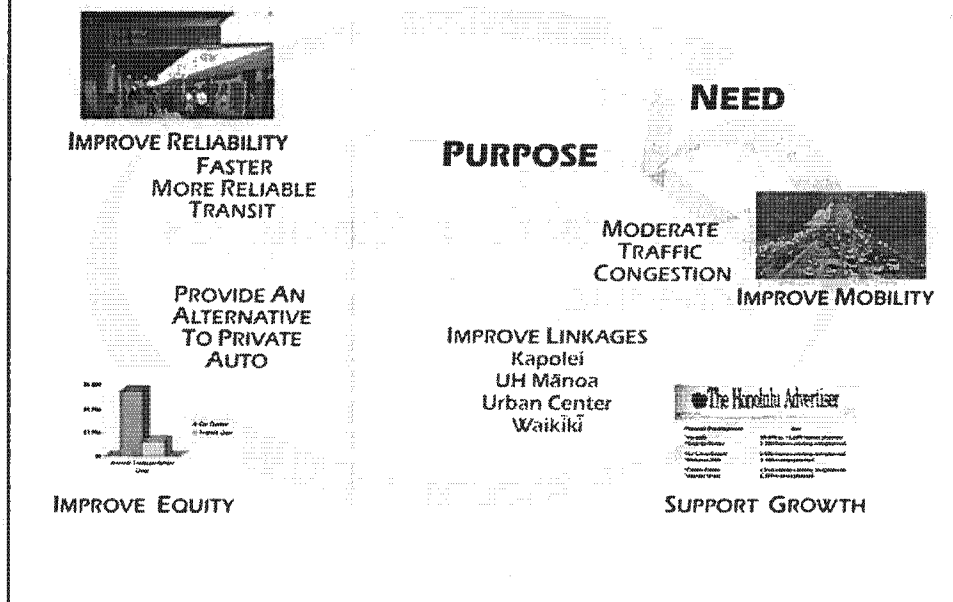
### Introduction

- Purpose
- Alternatives
- Comparisons of Alternatives
- Schedule

# Mobility is Issue #1

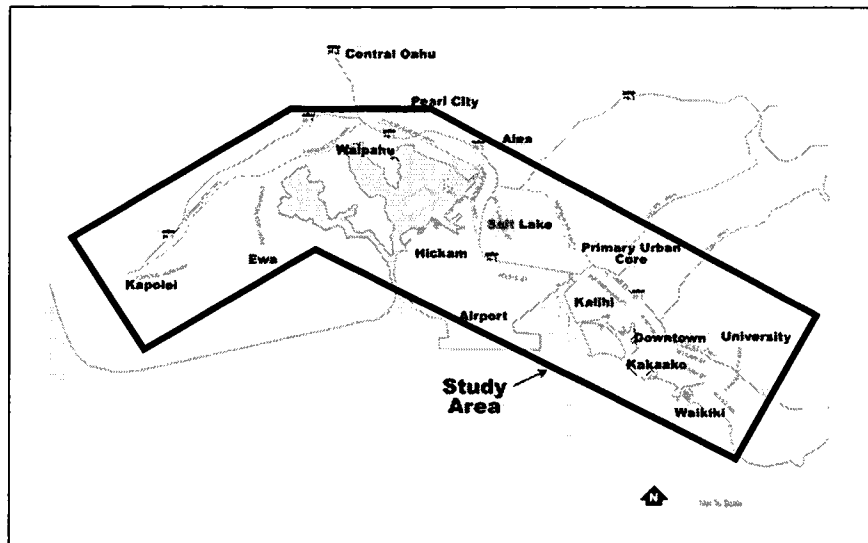


## Purpose and Need

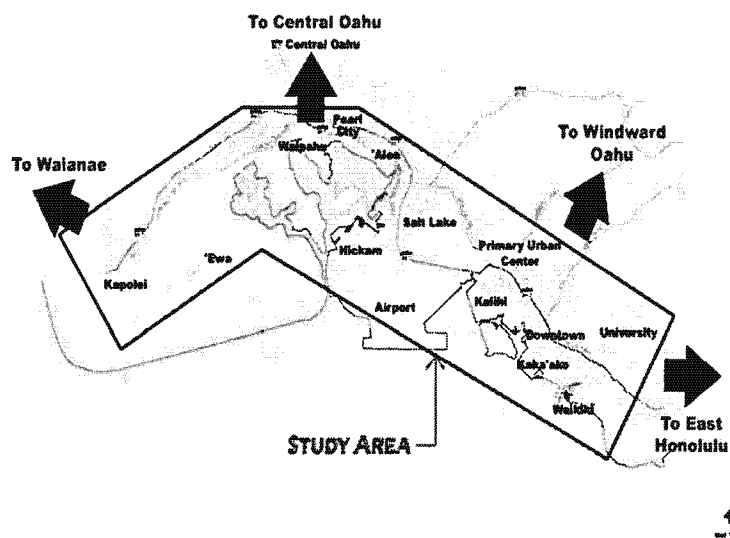




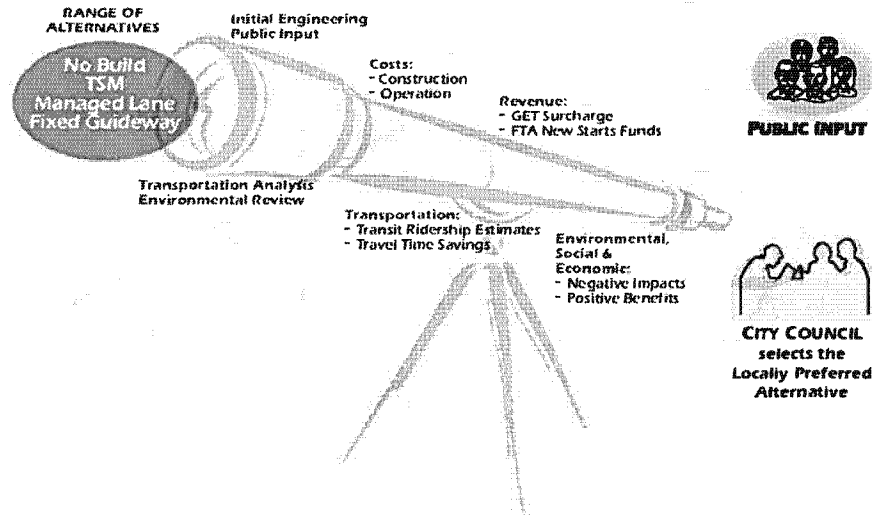
## Where is the project corridor?



## Are other areas served?



# Alternatives Analysis



## Four Alternatives

- No Build
- Transportation System Management (TSM)
- Managed Lane
- Fixed Guideway

## Alternative 1: No Build Alternative

- Existing bus system, including currently programmed enhancements and expansion to support growth
- Projects included in the Oahu Regional Transportation Plan

North-South Road

Farrington Highway widening

Fort Weaver Road widening

Leeward Commuter Ferry

### H-1 Improvements:

Waiawa Interchange to Hālawā Interchange widening

Middle Street to Vineyard Boulevard widening

H-1 HOV lanes (Makakilo to Waiawa)

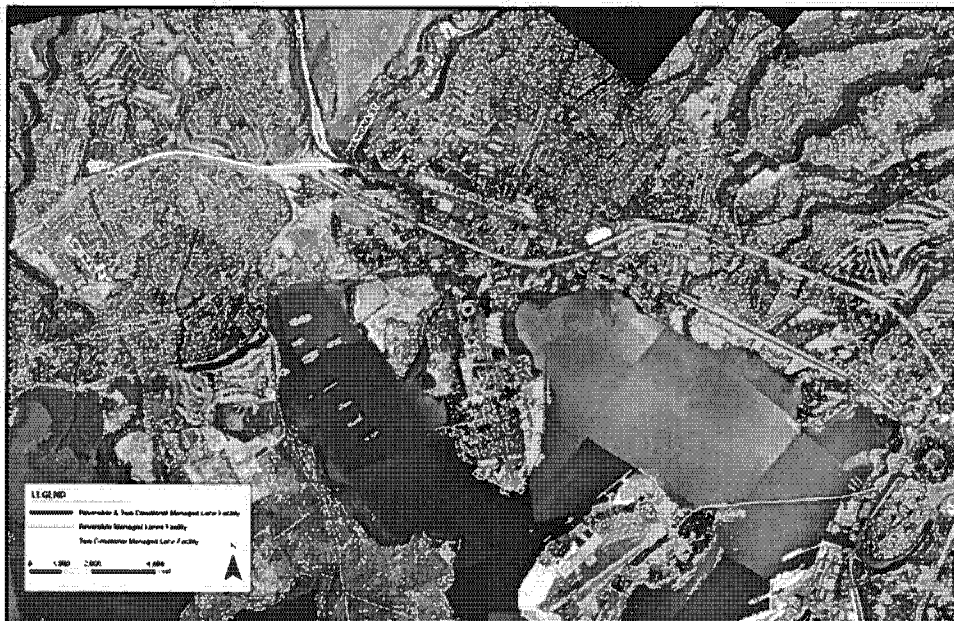
PM Zipper Lane

## Alternative 2: Transportation System Management Alternative

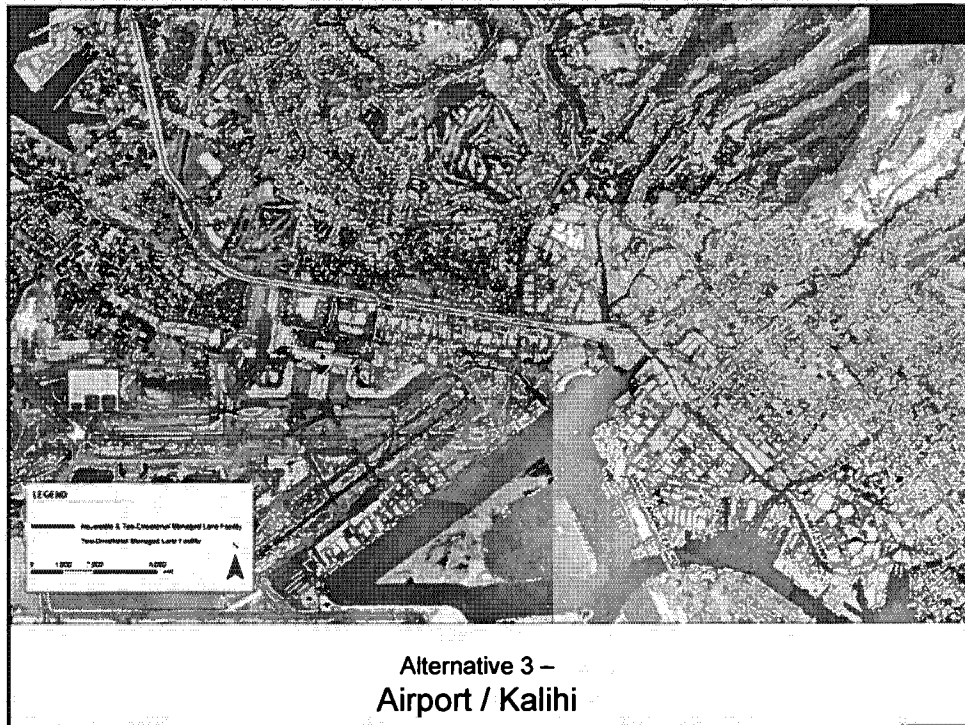
- Construction of new low-cost transit facilities:
  - Park-and-ride lots
  - Transit centers
- Expanded bus service
- Everything included in No Build

## Alternative 3: Managed Lane Alternative

- Everything included in No Build
- Construction of a two-lane grade-separated guideway from Waipahu to Iwilei
- Two options:
  - Two-lane reversible
  - One-lane in each direction
- “Manage” use of lanes, to maintain free-flow speeds for buses
- Allow up to available capacity:
  - High-occupancy vehicles (HOVs)
  - Toll-paying single-occupant vehicles (with variable pricing)

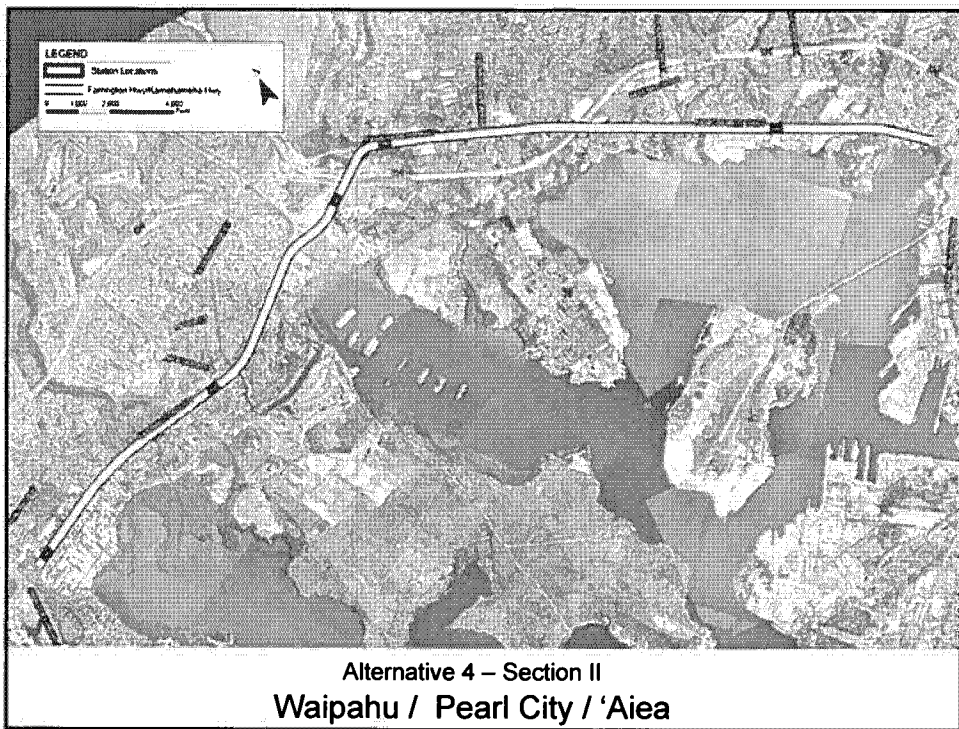
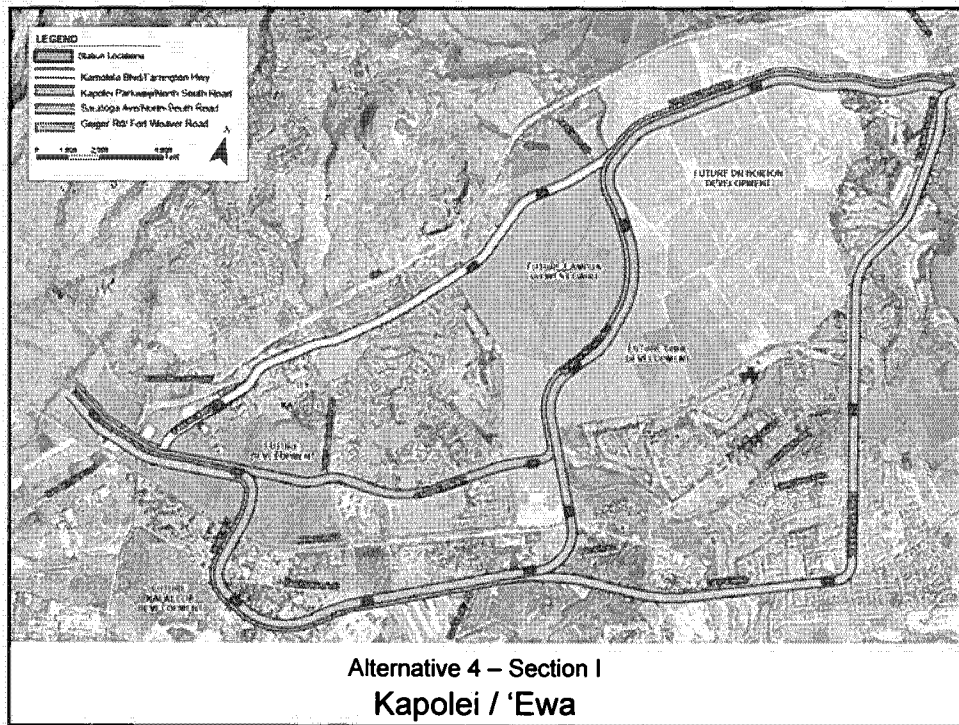


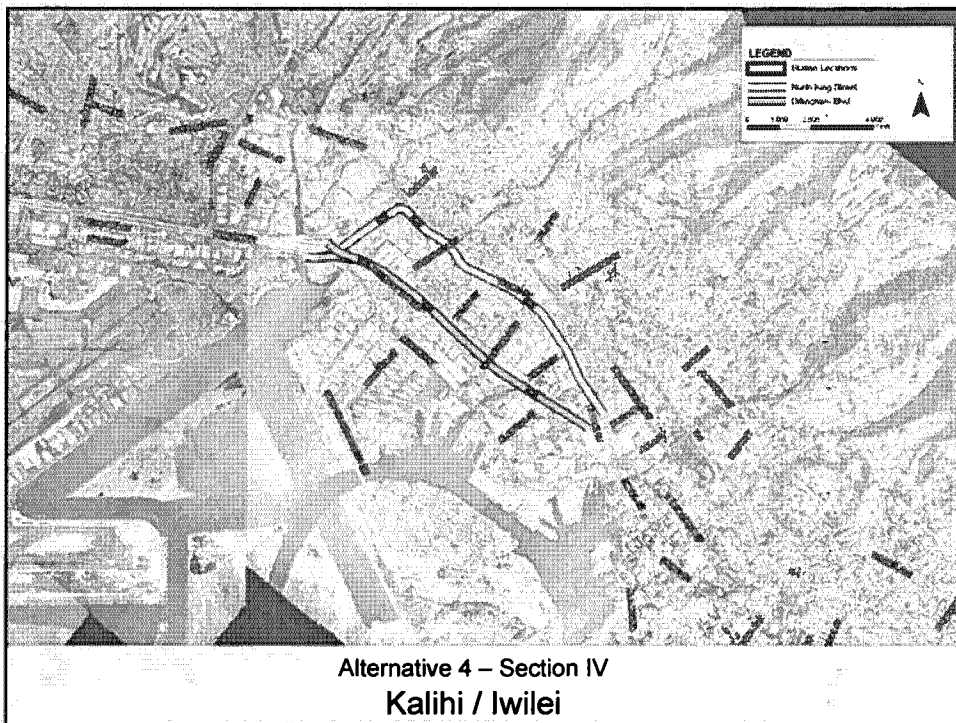
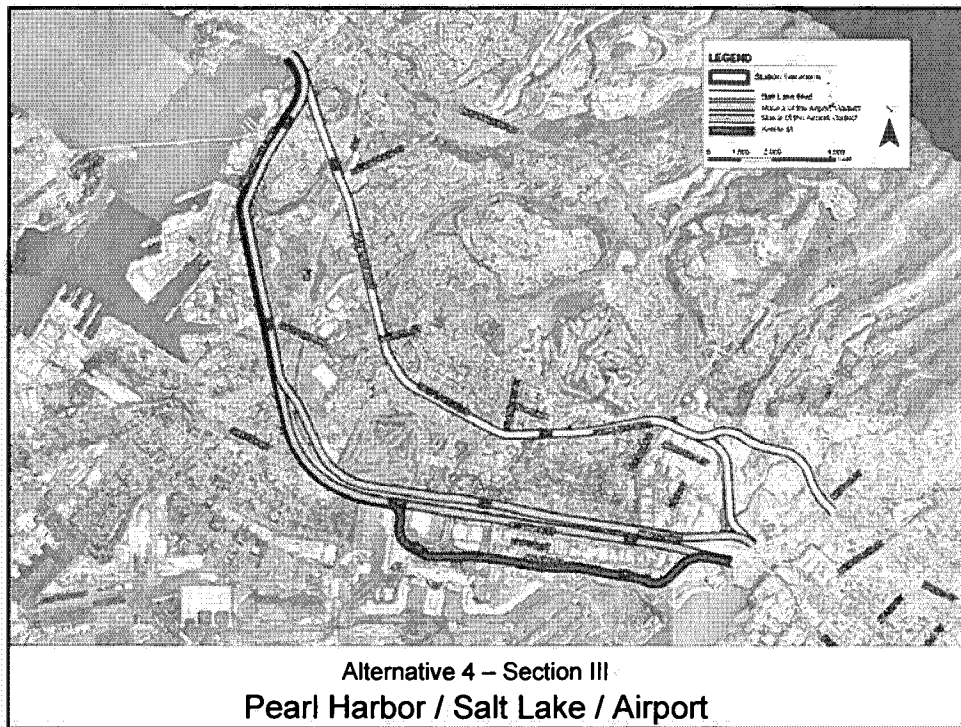
Alternative 3 –  
Pearl City / 'Aiea



## Alternative 4: Fixed Guideway Alternative

- Fixed guideway system
  - High Capacity
  - Reliable travel times
  - Integrated with bus, parking, bicycling and walking
- Multiple alignment options by geography
- Four technologies being considered







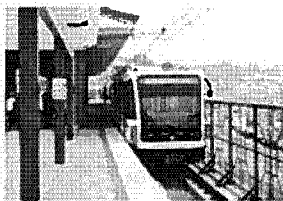




## How long will it take?

From	To	Time	Current Bus Time
Kapolei	Downtown	~ 38 minutes	~ 60 minutes
Waipahu	Ala Moana Center	~ 28 minutes	~ 55 minutes
Pearl Highlands	Downtown	~ 22 minutes	~ 50 minutes
Airport	Waikīkī	~ 19 minutes	~ 50 minutes
UH Mānoa	Downtown	~ 10 minutes	~ 25 minutes

## What transit technologies are being considered?



Light Rail



Monorail



Maglev



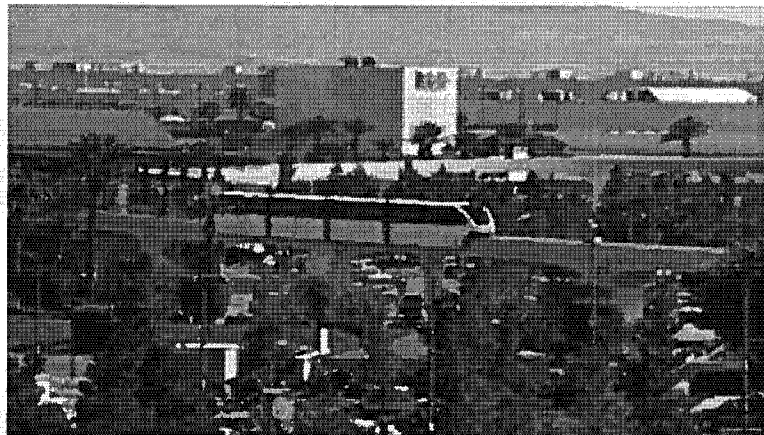
Rapid Rail

## Fixed Guideway Alternative



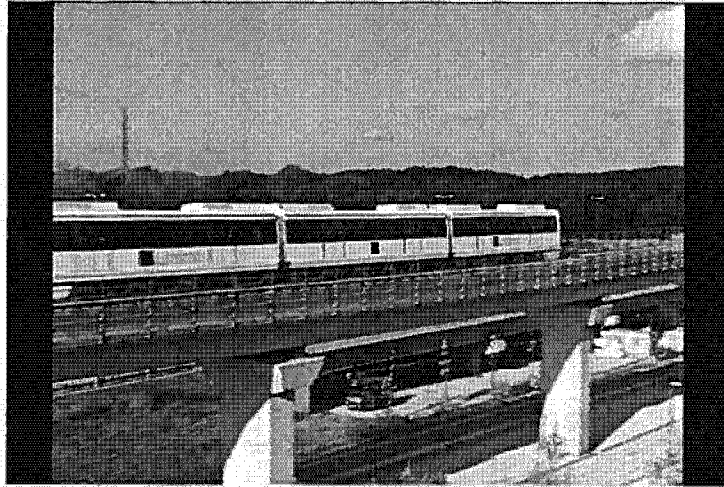
Light Rail

## Fixed Guideway Alternative



Monorail

## Fixed Guideway Alternative



Maglev

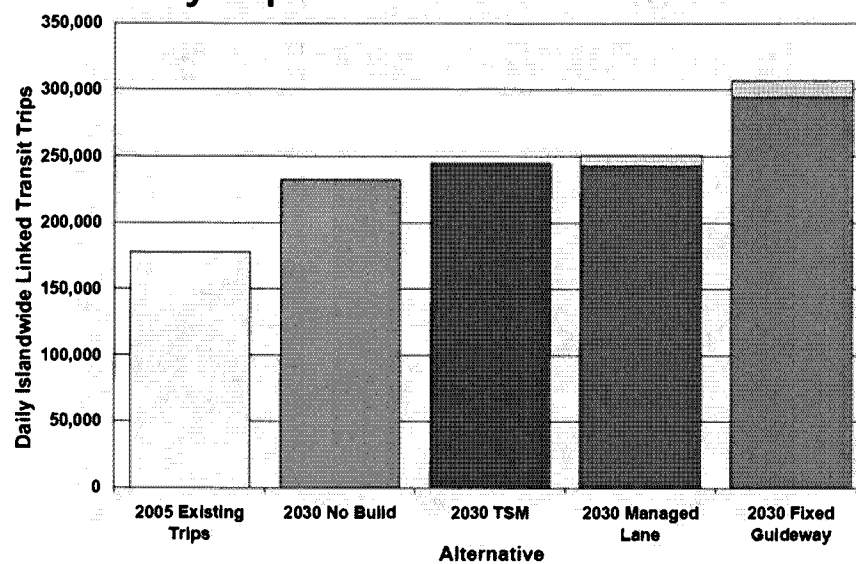
## Fixed Guideway Alternative



Rapid Rail

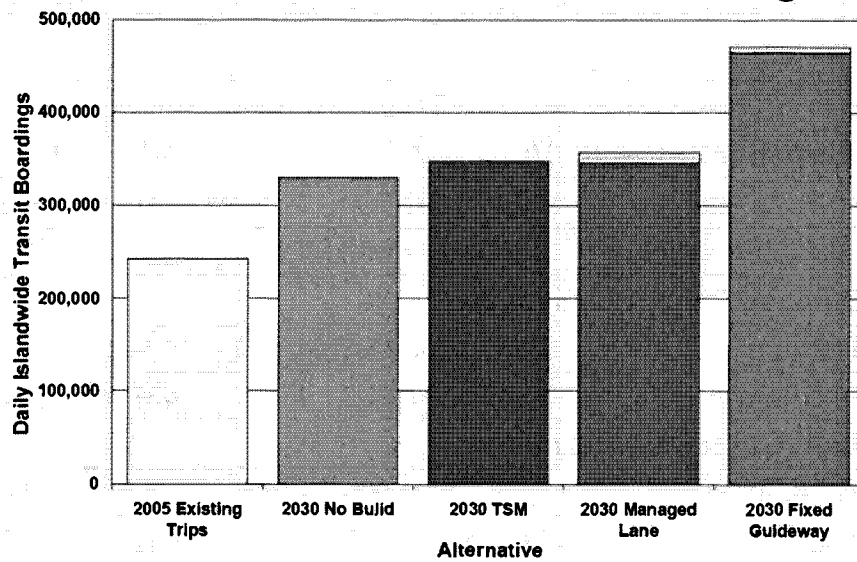
## How do the alternatives compare?

## How many trips will be on transit in 2030?

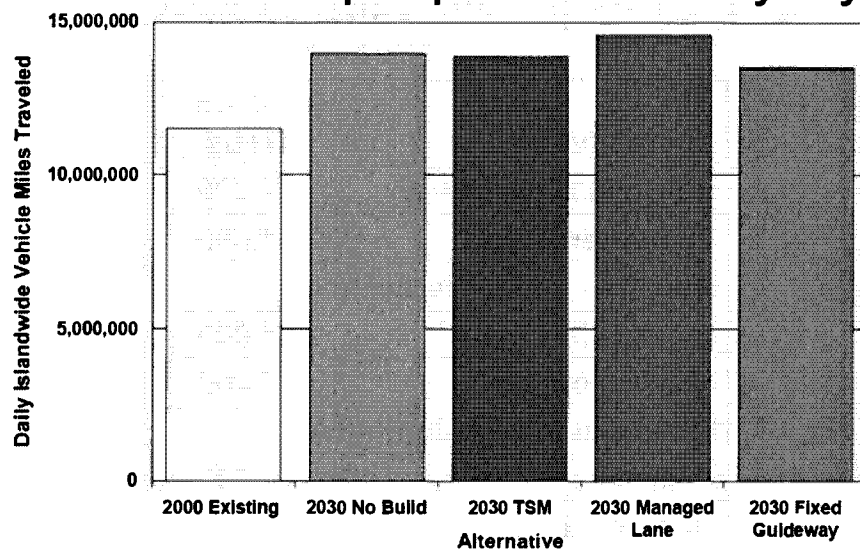


This graph shows the number of end-to-end (linked) trips that will be taken islandwide on public transit (including bus and fixed guideway trips) for each alternative. The range between the minimum and maximum number of passenger trips for each alternative depends on the option selected.

## Or we can look at transit boardings



## How much will people drive everyday?



## How much islandwide air pollution would be generated by transportation ?

Alternative	Air Pollutant Emissions (kg/day)				
	VOC	CO	NOx	PM <sub>10</sub>	PM <sub>2.5</sub>
No Build Alternative	8,040	143,000	4,780	424	203
TSM Alternative	7,980	142,000	4,750	420	201
<b>Managed Lane Alternative</b>					
Minimum	8,030	143,500	4,800	424	203
Maximum	8,340	147,000	4,930	438	210
<b>Fixed Guideway Alternative</b>					
Minimum	7,760	139,000	4,640	410	196
Maximum	7,800	139,700	4,670	412	197
Pollutant emissions reported in Kilograms per day					

## How much transportation energy would be used daily islandwide?

Alternative	million BTUs
No Build Alternative	92,300
TSM Alternative	91,600
<b>Managed Lane Alternative</b>	
Minimum	94,900
Maximum	95,400
<b>Fixed Guideway Alternative</b>	
Minimum	91,200
Maximum	92,100

## How loud are the alternative technologies ?

Type of	Lmax noise level at 50 feet (dBA)													
Vehicle	60			70			80			90			100	
Automobile														
City Bus														
Light Rail														
Rapid Rail														
Monorail														
Maglev														
Delivery Truck														
Dump Truck														

## What will the alternatives cost?

- **No Build Alternative:** \$800 million in bus replacement costs
- **TSM Alternative:** Cost of No Build Alternative + less than \$300 million in transit improvements
- **Managed Lane Alternative:** Cost of No Build Alternative + over \$2 billion in project costs
- **Fixed Guideway Alternative:** Cost of No Build Alternative + over \$3 billion in project costs

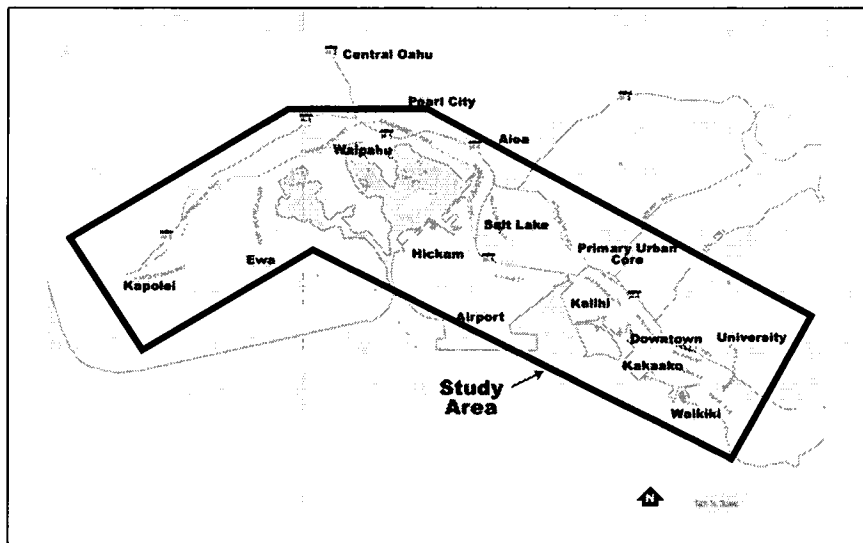
## Is there a financially prudent first project?

The analysis should include options that:

- are conscientious about expending taxpayer money
- provide substantial benefit within a limited cost
- Meet FTA guidance to consider a range of intermediate-cost alternatives

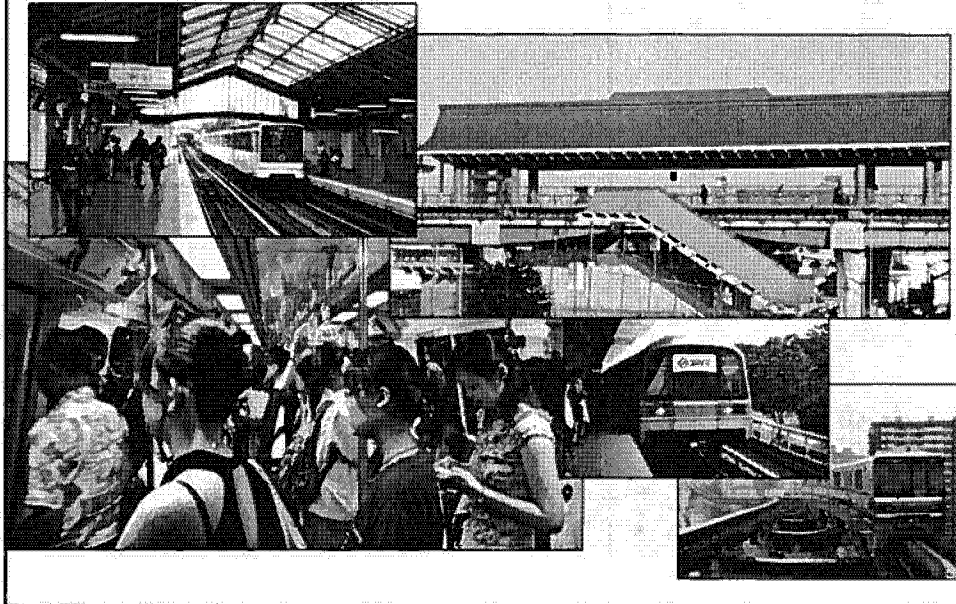
Define the first project as a portion of the corridor that best meets project goals and objectives with a project budget of about \$3 billion.

## What should the first project be?





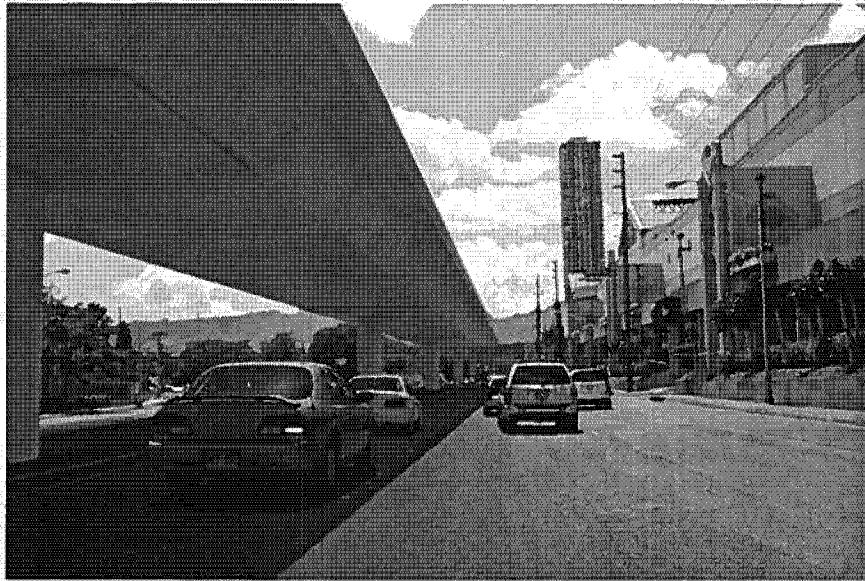
## What would the alternatives look like?



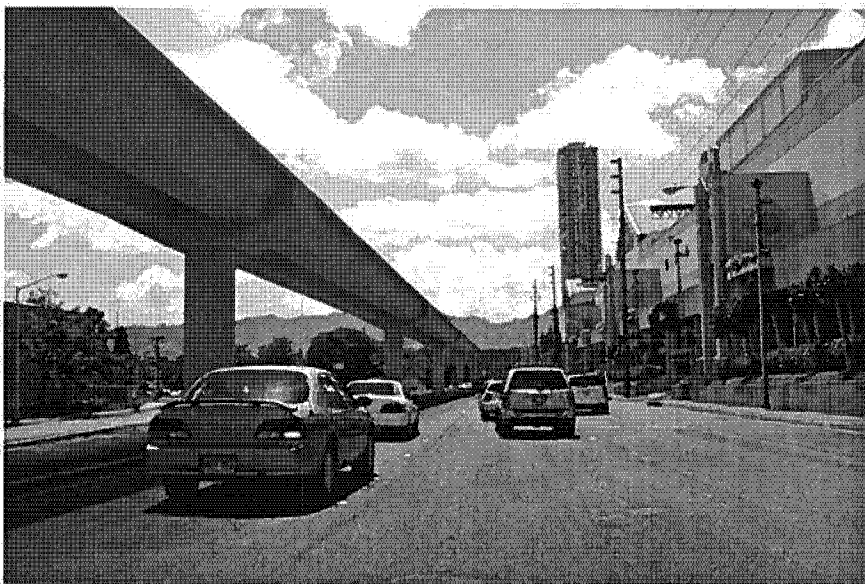
## Existing View - Kamehameha Highway at Acacia



**Managed Lane Alternative - Kamehameha Highway at Acacia**



**Fixed Guideway Alternative - Kamehameha Highway at Acacia**



Existing View – Āliamanu Elementary School



Fixed Guideway (Salt Lake Alignment) – Āliamanu Elementary



Existing View - King Street - Saint Elizabeth's Church



Fixed Guideway Alternative - King Street



Existing View – Kūhiō Avenue at Lili'uokalani (Waikīkī)



Fixed Guideway – Kūhiō Avenue at Lili'uokalani (Waikīkī)



## September and October Community Updates

**September 18, 12:00 noon** U.H. Mānoa,  
Campus Center Ballroom

**September 18, 7:00 p.m.** August Ahrens Elementary,  
Waipahu

**September 19, 7:00 p.m.** Holomua Elementary,  
'Ewa

**September 20, 7:00 p.m.** Alvah Scott Elementary,  
'Aiea

**October 24, 7:00 p.m.** He'eia Elementary,  
Kāne'ohe

**October 30, 7:00 p.m.** Nānāikapono Elementary,  
Nānākuli

[www.honolulutransit.org](http://www.honolulutransit.org)

## Schedule

**December 2005** Scoping Meetings - Completed

**January 2006-October 2006** Technical Studies and Public  
Outreach

**November 2006** Issue Alternatives Analysis  
Report

**November/December 2006** Public Hearing on Alternatives  
Analysis

**December 2006** City Council selects Locally  
Preferred Alternative

[www.honolulutransit.org](http://www.honolulutransit.org)

## Get Involved

- Receive mailings
- Visit [www.honolulutransit.org](http://www.honolulutransit.org)
- Call 566-2299
- Stay informed with *accurate* information





# Honolulu On The Move

## The Honolulu High-Capacity Transit Corridor Project

### Project Contact Sign-up

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